

2016 Annual Drinking Water Quality Report

Consumer Confidence Report (CCR)

CITY OF GLENN HEIGHTS

PWS ID NUMBER: TX0570085

PWS NAME: CITY OF GLENN HEIGHTS

PHONE NUMBER: (972) 274-5100

Annual Water Quality Report is for the period of January 1 to December 31, 2016.

This report is intended to provide you with important information about your drinking water and the efforts made by your water system to provide safe drinking water. The source of drinking water used by the CITY OF GLENN HEIGHTS in 2016 was Surface Water (SW) purchased from the City of Dallas (PWS # TX0570004). For more information regarding this report contact:

Name: Charles R. Brewer/Director of Public Works and Infrastructure

Phone: (972) 274-5100 Ext. 421

Este reporte incluye informacion importante sobre el agua para tomar. Para asistencia en espanol, favor de llamar al telefono: (972) 274-5100 Ext. 421.

Source of Drinking Water

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline at 800-426-4791.

Contaminants that may be present in source water include:

- Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems.
- Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Contaminants may be found in drinking water that may cause taste, color, or odor problems. These types of problems are not necessarily causes for health concerns. For more information on taste, order, or color of drinking water, please contact the City Glenn Heights' Department of Public Works & Infrastructure.

You may be more vulnerable than the general population to certain microbial contaminants, such as Cryptosporidium, in drinking water. Infants, some elderly, or immunocompromised persons such as those undergoing chemotherapy for cancer; persons who have undergone organ transplants; those who are undergoing treatment with steroids; and people with HIV/AIDS or other immune system disorders, can be particularly at risk from infections. You should seek advice about drinking water from your physician or health care providers. Additional guidelines on appropriate means to lessen the risk of infection by Cryptosporidium are available from the Safe Drinking Water Hotline (800-426-4791).

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The City of Glenn Heights is responsible for providing high quality drinking water, but the City cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

Information about Source Water Assessments

A Source Water Assessment for your drinking water source(s) is currently being updated by the TCEQ. This information describes the susceptibility and types of constituents that may come into contact with your drinking water source based on human activities and natural conditions. The information contained in the assessment allows us to focus source water protection strategies.

For more information about your sources of water, please refer to the Source Water Assessment Viewer available at the following URL:

<http://gis3.tceq.state.tx.us/swav/Controller/index.jsp?wtrsrc=>

Further details about sources and source-water assessments are available in Drinking Water Watch at the following URL: <http://dww.tceq.texas.gov/DWW>

Public Participation Opportunities: The Public is invited to attend bi-monthly City of Glenn Heights' City Council meetings in order to participate in decisions that may affect the quality of water in the city of Glenn Heights. The Glenn Heights City Council meets on the 1st and 3rd Tuesdays of each month at 7 p.m. at 1938 S. Hampton Rd., Glenn Heights, TX 75154.

Water Loss: In the water loss audit submitted to the Texas Water Development Board for the time period of January 1, 2016 to December 31, 2016, the City of Glenn Heights' system lost an estimated 24% of the system input volume. If you have any questions about the water loss audit, please contact the City of Glenn Heights' Water Department at (972) 274-5100.

Water Quality Test Results

Definitions:	The following tables contain scientific terms and measures, some of which may require explanation.
Avg:	Regulatory compliance with some MCLs are based on running annual average of monthly samples.
Level 1 Assessment:	A Level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.
Level 2 Assessment:	A Level 2 assessment is a very detailed study of the water system to identify potential problems and determine (if possible) why an E. coli MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.
Maximum Contaminant Level (MCL):	The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
Maximum Contaminant Level Goal (MCLG):	The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
Maximum Residual Disinfectant Level (MRDL):	The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
Maximum Residual Disinfectant Level Goal (MRDLG):	The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.
MFL:	million fibers per liter (a measure of asbestos)
mrem/year:	millirems per year (a measure of radiation absorbed by the body)
na:	not applicable
NTU:	nephelometric turbidity units (a measure of turbidity)
pCi/L:	picocuries per liter (a measure of radioactivity)
ppb:	micrograms per liter or parts per billion – or one ounce in 7,350,000 gallons of water.
ppm:	milligrams per liter (or parts per million – or one ounce in 7,350 gallons of water.
ppt:	parts per trillion, or nanograms per liter (ng/L)
ppq:	parts per quadrillion, or pictograms per liter (pg/L)
Treatment Technique or TT:	A required process intended to reduce the level of a contaminant in drinking water

Disinfectant Residual

Type of Disinfectant	Year	Average Level of Disinfectant Residuals	Minimum Level of Disinfectant Residuals	Maximum Level of Disinfectant Residuals	MRDL	MRDLG	Units	Violation	Likely Source of Contamination
Chloramines (Total) – GH	2016	1.38	.50	3.0	4.0	4.0	ppm	N	Water additive to control microbes.
Chloramines (Total) – Dallas	2016	2.12	1.92	2.46	4.0	4.0	ppm	N	Water additive to control microbes.

Coliform Bacteria

	Maximum Contaminant Level Goal	Total Coliform Maximum Contaminant Level	Highest No. of Positive	Fecal Coliform or E. Coli Maximum Contaminant Level	Total No. of Positive E. Coli or Fecal Coliform Samples	Violation	Likely Source of Contamination
GH	< 0	1 positive monthly sample	7	-	0	N	Naturally present in the environment.
Dallas	5% or more of monthly samples	5% or more of monthly samples	1.2%	-	-	-	Naturally present in the environment.

Regulated Contaminants Detected

Lead and Copper

Definitions:

Action Level Goal (ALG): The level of a contaminant in drinking water below which there is no known or expected risk to health. ALGs allow for a margin of safety.

Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90 th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper - GH	2016	1.3	1.3	0.21	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Copper - Dallas	2015	1.3	1.3	0.400	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Lead - GH	2017	0	15	1.2	0	ppb	N	Corrosion of household plumbing systems; erosion of natural deposits.
Lead - Dallas	2015	0	15	1.1	0	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits.

Regulated Contaminants:

Disinfectants and Disinfections By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violations	Likely Source of Contamination
Haloacetic Acids (HAA5) - GH	2016	14	4.3-27.3	No goal for the total.	60	ppb	N	By-product of drinking water disinfection.
Haloacetic Acids (HAA5) - Dallas	2016	15.6	<2.0-19.2	No goal for the total.	60	ppb	N	By-product of drinking water disinfection.
Total Trihalomethanes (TTHM) - GH	2016	16	9.05-16.3	No goal for the total.	80	ppb	N	By-product of drinking water distribution.
Total Trihalomethanes (TTHM) - Dallas	2016	26.0	6.7-26.0	No goal for the total.	80	ppb	N	By-product of drinking water distribution.
Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contaminations
Arsenic - GH	09/07/2011	0.607	0.607 - 0.607	0	10	ppb	N	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.
Arsenic - Dallas	2016	0.80	<0.700 - 0.80	0	10	ppb	N	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.
Antimony - Dallas	2016	0.27	<0.200 - 0.27	6	6	ppb	N	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder.
Barium - GH	09/07/2011	0.0044	0.0044 - 0.0044	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Barium - Dallas	2016	0.025	0.010-0.025	2	2	ppm	N	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
Bromate - Dallas	2016	<10	<0.03-<10	0	10	ppb	N	By-product of drinking water distribution.
Chromium - GH	09/07/2011	8.82	8.82 - 8.82	100	100	ppb	N	Discharge from steel and pulp mills; erosion of natural deposits.
Chromium - Dallas	2016	0.77	0.48-0.77	100	100	ppb	N	Discharge from steel and pulp mills; erosion of natural deposits.
Cyanide - Dallas	2016	164	6.45-164	200	200	ppb	N	Discharge from steel/metal factories; discharge from plastic and fertilizer factories.
Fluoride - GH	07/10/2014	1.38	1.38 - 1.38	4	4.0	ppm	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Fluoride - Dallas	2016	1.02	0.544-1.02	4	4.0	ppm	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Nitrate (measured as Nitrogen) - GH	2016	1	0.779-0.779	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Nitrate (measured as Nitrogen) - Dallas	2016	0.538	0.220-	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.



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Selenium – GH	09/07/2011	3.55	3.55 – 3.55	50	50	ppb	N	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines.
Selenium – Dallas	2015	2.8	<1.00 – 2.8	50	50	ppb	N	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines.
Radioactive Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Combined Radium 226/228 – GH	09/07/2011	1	1 – 1	0	5	pCi/L	N	Erosion of natural deposits.
Combined Radium 226/228 – Dallas	2011	1	1 – 1	0	5	pCi/L	N	Erosion of natural deposits.
Gross beta particle activity - Dallas	2011	5.3	4 – 7.2	0	50	pCi/L	N	Decay of natural or man-made deposits.
Organic contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Bis (2-Ethylhexyl)phthalate – Dallas	2016	2.7	<0.5-2.7	0	6	ppb	N	Discharge from rubber and chemical factories.
Total Organic Carbon	Collection Date	Highest Level Detected	Range of Levels Detected	Treated Water Alkalinity		Units	Violation	Likely Source of Contaminations.
Total Organic Carbon – Dallas	2016	5.43	2.86-5.43	<60 mg/L as CaCO3		ppm	N	Naturally present in the environment.

(1) - EPA considers 50 pCi/L to be the level of concern for beta particles.

Turbidity

	Limit (Treatment Technique)	Level Detected	Violation	Likely Source of Contamination
Highest single measurement – GH	0.3 NTU	0NTU	N	Soil runoff.
Highest single measurement – Dallas	0.3 NTU	0.15 NTU	N	Soil runoff.
Lowest monthly % meeting limit – GH	-	100%	N	Soil runoff.
Lowest monthly % meeting limit – Dallas	-	100%	N	Soil runoff.

Information Statement: Turbidity is a measurement of the cloudiness of water caused by suspended particulars. It is monitored because it is a good indicator of water quality and the effectiveness of the treatment plants filtration process.